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Southampton Archaeology Unit Report 1518

Report on Archaeological Watching Brief at Upper Shirley High School, Southampton. SOU 1948

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Client: Hamwic Education Trust



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Front cover: Section through feature 4

Summary Sheet

Site name / address: Upper Shirley High School, Bellemoor Road SO15 7QU
SOU site code: SOU 1948
Contractor site code: SOU 1948
HET consultation number: 9330
Grid reference of site: 440625 114662
Fieldwork dates: 2/8/2022-5/9/2022
Type of fieldwork: Watching Brief
Southampton Museum accession number 2023.30
Name of contracting unit: Southampton City Council Archaeology Unit
Report authors: Dr A Russel
Name of client: Hamwic Educational Trust
SCC Accession No: 2023.30
<p>Non-technical summary</p> <p>The Archaeology Unit of Southampton City Council observed groundworks related to the erection of a sports hall with ancillary facilities at Upper Shirley High School, Bellemoor Road, Southampton. The site is in Southampton Local Area of Archaeological Potential 16 and partly lies on River Terrace 4 within the test Valley, which has produced numerous flint handaxes. The local planning authority asked for an archaeological watching brief on the groundworks.</p> <p>The River Terrace 4 gravels were exposed in the southwest part of the site, but no signs of hominid activity were seen. Gravel was also found in the northeast part of the site, perhaps Head, or possibly River Terraces 6 to 7, but again no artifacts were seen. The gravels were overlain by brickearth. A few features of uncertain date were revealed in the central part of the site. The 1865 Ordnance Survey map shows a cluster of large trees in this location, some apparently following a field boundary, and it is likely that the features were tree throws or root disturbances.</p> <p>The site did provide evidence that allows the boundaries of the Middle/Late Palaeolithic gravels in the Southampton area to be better defined, which will improve understanding of where hominid activity may have taken place.</p>

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1. Summary

The Archaeology Unit of Southampton City Council observed groundworks related to the erection of a sports hall with ancillary facilities at Upper Shirley High School, Bellemoor Road, Southampton. The site is in Southampton Local Area of Archaeological Potential 16 and partly lies on River Terrace 4 within the test Valley, which has produced numerous flint handaxes. The local planning authority asked for an archaeological watching brief on the groundworks.

The River Terrace 4 gravels were exposed in the southwest part of the site, but no signs of hominid activity were seen. Gravel was also found in the northeast part of the site, perhaps Head, or possibly River Terraces 6 to 7, but again no artifacts were seen. The gravels were overlain by brickearth. A few features of uncertain date were revealed in the central part of the site. The 1865 Ordnance Survey map shows a cluster of large trees in this location, some apparently following a field boundary, and it is likely that the features were tree throws or root disturbances.

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2. Introduction

2.1 Planning permission for the redevelopment of existing external sports courts with erection of a sports hall building with ancillary facilities at Upper Shirley High, Bellemoor Road, Southampton SO15 7QU, was conditionally approved under application No: 19/01164/FUL.

2.2 The SCC planning archaeologist commented that “the site lies on Pleistocene River Terrace 4, the gravel river terrace in Southampton that has yielded the highest number of Palaeolithic flint hand axes. There are several prehistoric (Palaeolithic, Mesolithic, and Neolithic) and Roman find spots within 500m of the site, but otherwise limited archaeological evidence, and stated that

“the appropriate investigation is a watching brief on all groundworks, with provision to excavate if archaeological remains are found.”

2.3 To that end, the planning permission included two conditions for archaeological work.

06. Archaeological watching brief with provision to excavate investigation [Pre-Commencement Condition]. No development shall take place within the site until the implementation of a programme of archaeological work has been secured in accordance with a written scheme of investigation which has been submitted to and approved by the Local planning Authority.

Reason: To ensure that the archaeological investigation is initiated at an appropriate point in development procedure.

07. Archaeological watching brief with provision to excavate work programme [Performance Condition]. The developer will secure the completion of a programme of archaeological work in accordance with a written scheme of investigation which has been submitted to and approved by the Local planning Authority.

Reason: To ensure that the archaeological investigation is completed.

2.4 A written scheme of investigation was written to the recommended guidelines for archaeological projects laid down by English Heritage in *The Management of Research Projects in the Historic Environment* 2006. The written scheme of investigation was approved by the SCC Planning Archaeologist.

2.5 All work was carried out in accordance with the Chartered Institute for Archaeologists' *Code of Conduct*.

2.6 The definition of an archaeological watching brief is *a formal programme of observation and investigation conducted during any operation carried out for non-archaeological reasons. This will be within a specified area or site on land, inter-tidal zone or underwater, where there is a possibility that archaeological deposits may be disturbed or destroyed. The programme will result in the preparation of a report and ordered archive.* (Chartered Institute for Archaeologists 2020).

2.7 The HET number is 9330.

3. Site Location, geology, and topography

3.1 The site is located to the north of Bellemoor Road and south of Winchester Road at grid reference 440625 114662 (fig.1).

3.2 The site lies on the east side of the valley of the river Test, and according to the British Geological Survey online viewer the site lies on Wittering Formation deposits of sand, silt, and clay.

3.3 To the northeast of the site deposits of head and gravel of River Terraces 6 to 7 are recorded as overlying the Wittering, with gravel of River Terrace 4 overlying the Wittering to the southwest.

(<http://mapapps.bgs.ac.uk/geologyofbritain/home.html>).

3.4 The nomenclature of the River Test Terraces, and their relation to other terraces in the Solent is a matter of recent debate (Hatch et al 2017), but the BGS is followed here.

3.5 A spot height of 34.013mOD was recorded on the tarmac to the west of the proposed building.



Figure 1: Site location map. Approximate location of site marked by red star.
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3.6. The project was managed by Dr AD Russel BA PhD MCIfA. The fieldwork was carried out by Dr AD Russel and T Riley BA MSc. The report was written by Dr AD Russel, and T Riley produced the illustrations.

4. Historical and Archaeological background

4.1 The site is in Local Area of Archaeological Potential 16 (The Rest of Southampton), as defined in the Southampton Local Plan and Core Strategy. LAAP 16 covers parts of the city defined as an area of archaeological potential about which little is known at present, usually (as in this case) due to a lack of formal archaeological fieldwork.

4.2 An Archaeological Desk Based Assessment, commissioned for a 2009 planning application for the school, outlined the archaeological and map evidence for a wider study area (PCA 2009).

4.3 The site lies on Pleistocene River Terrace 4, the gravel river terrace in Southampton that has yielded the highest number of Palaeolithic flint hand axes. A scattering of Palaeolithic (Davis 2015), Mesolithic, Neolithic, Bronze, Iron Age, and Roman artefacts and deposits in the vicinity suggests potential for archaeology of prehistoric and Roman date. Winchester Road, a westward continuation of the medieval Burgess Street, runs to the northwest of the site, raising the potential for Medieval activity in the area although little has been uncovered.

4.4 The map evidence shows that the school site was farmland until the mid-19th century (fig. 2). By the 1930s the area was a horticultural nursery which was still running in 1945 (fig. 3). Construction of the school began in the mid-1960s.

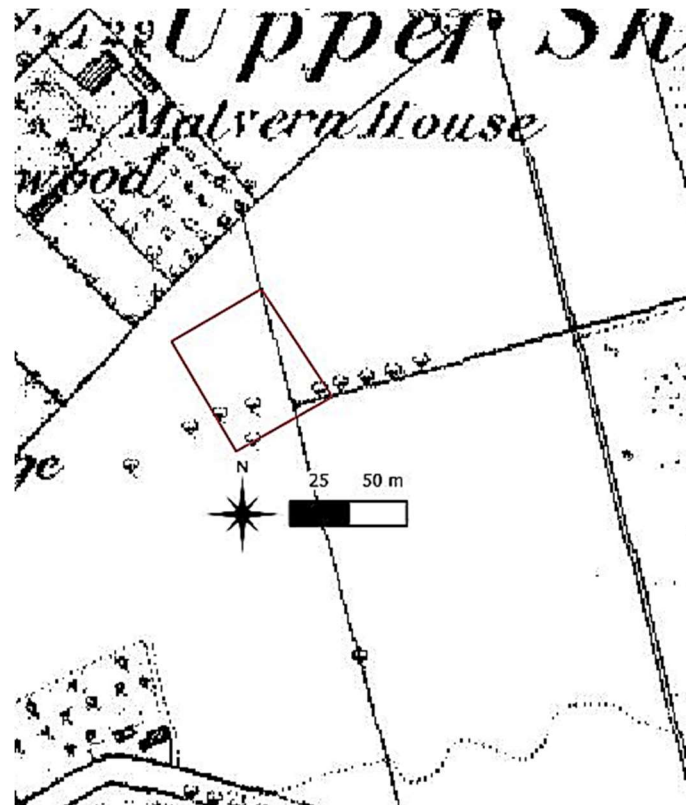


Figure 2: 1867 6inch Ordnance Survey map published 1871. Approximate location of development marked by red outline. Bellemoor Road to the south. Note the line of trees traversing the site.

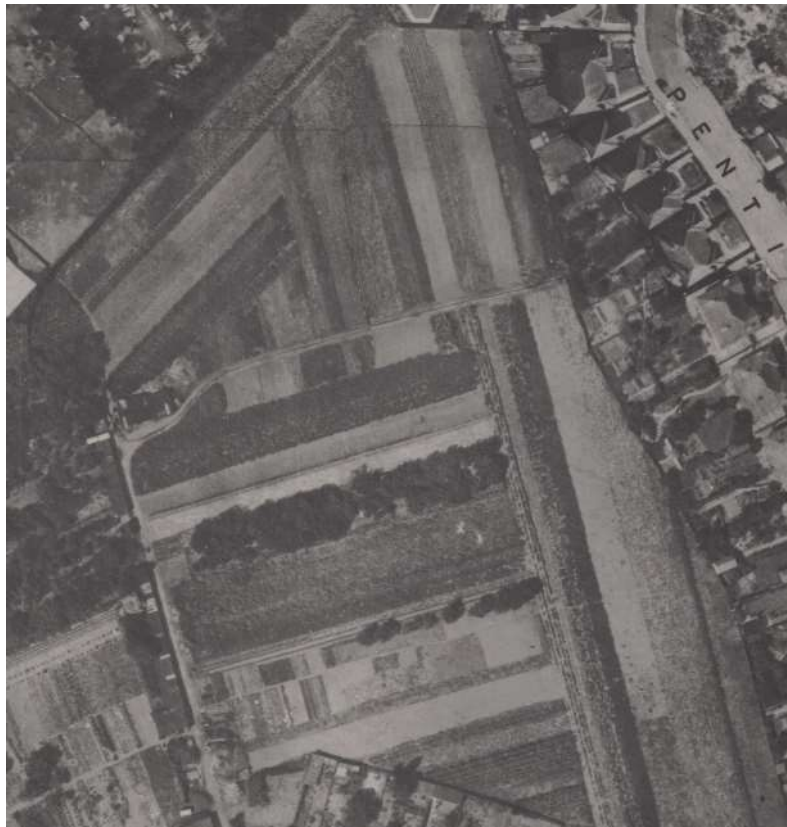


Figure 3: The area around the site from the air in August 1945 showing the nursery under cultivation. (National Library of Scotland).

4.5 In 2017, an archaeological watching brief (SOU 1771) during groundworks for a new school building to the southwest of the site found four undated features of uncertain origin.

5. Aims

5.1 The watching brief aimed to make a record of any archaeology disturbed by the works and to determine the extent, condition, nature, character, quality, and date of any archaeological remains encountered, as dictated by current best practice. Should important archaeology be exposed, important being defined as pre 1860, it was to be investigated and subject to full recording.

5.2 A secondary aim was to identify and record the nature, dimensions, and relationship of natural deposits on the site and assess the potential of the natural deposits to contain or conceal archaeological remains, particularly from the prehistoric periods.

6. Methodology

6.1 The fieldwork consisted of the continuous archaeological monitoring of the groundworks (fig. 4) over a period of nine days from 2 August 2022 to 5 September 2022.

6.2 The machining was carried out using a toothless bucket that gave a good finish to the sides and base of the groundworks in the clayey deposits and the trenches did not require cleaning with a trowel, but where potential features were seen the trench edges were cleaned in order to give a better finish for recording and to check for the presence of artifacts. The soakaway trench and many of the deeper foundation pads were over 1.2m deep so those trenches could not be entered.

6.3 Context numbers were allocated to the different stratigraphic elements and sections through features were drawn and photographed.

6.4 The new building was constructed on the site of an existing netball court. The court had been constructed by levelling off the then ground surface, so the northeast of the court cut into the slope. The southwest part of the court had been built up using topsoil, probably obtained from the reduction to the north-east. The court had then been covered in limestone scalplings and given a tarmac playing surface.

6.5 The new building also needed a rectangular level area, so the netball court construction method was repeated somewhat. The old netball court was stripped off with a toothless bucket progressing from north to south. Once the north half of the site was level the stripping moved southwards interposed with excavation of foundation trenches in the stripped area. The foundation trenches (fig. 4) ran roughly east-west or north-south and were vertically-sided flat-bottomed trenches with wider areas to accommodate foundation pads. The pads varied in size dependent on the loads they were designed to take.

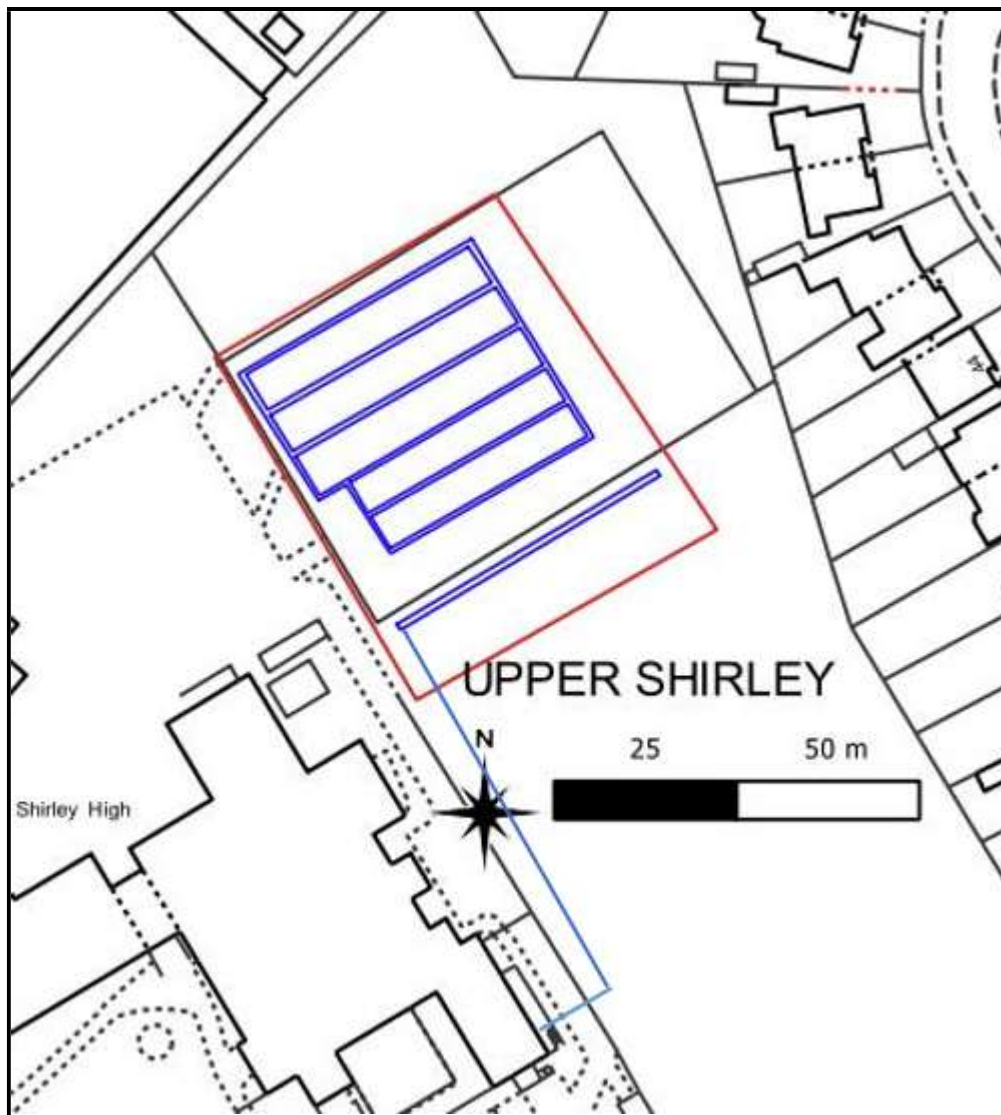


Figure 4. The groundworks observed marked in blue, consisting of foundation trenches for the new sports hall within the outline of the netball court, with the soakaway and service trench to the south.

7. Results

Findings are reported in chronological order. Appendix 1 gives details of contexts. No finds were retained.

7.1 Natural

7.1.1 The Solid Geology

The earliest deposit was context 2, the Wittering Formation, a reddish yellow (5YR 6/8) to yellow (10YR7/8) silty clay (fig. 5). It was up to 1m thick and was seen in all parts of the site.



Figure 5. Section through the natural on the east side of the site showing River Terrace gravel (3) over Wittering Formation clay (2).



Figure 6. View looking west across the site during early stages of the level reduction. The centre and right of the photo shows the lower part of the River Terrace 6 to 7 gravel (context 3) thinning out to the south (left), where the top of the Wittering Formation (context 2) is being exposed by removal of the topsoil.

7.1.2 The Superficial Geology

Above the Wittering Formation in the northeast part of the site was a deposit of silty clay with numerous ill-sorted flint pebbles, context 3 (figs 5 & 6). The layer was clearest along the north section where it was some 600mm thick, and it became patchier and thinner as the works progressed south and west, petering out in the centre of the site. This was interpreted as River Terrace gravel. The British Geological Survey shows

gravels from River Terraces 6 to 7 to the north of the site, its presence here suggests the south edge of the gravel lies further south than plotted.

When the soakaway trench was dug on the southern edge of the site a layer of finer well-sorted gravel in a silty clay matrix (context 7) was encountered (fig 5). This was interpreted as the northern edge of the gravel of River Terrace 4.



Figure 7. The south section of the soakaway showing brickearth over River Terrace 4 gravel at the south edge of the site. The convolutions suggest both deposits formed before the end of the last Ice Age.

Above the gravel in the central (fig 8) and south part of the site (fig. 7) was a layer of light yellowish brown (10YR6/4) silty clay loam context 6. This was interpreted as brickearth deposited at the end of the last Ice Age. Brickearth is defined by Historic England as a *19th century term used to describe fine-grained, largely stoneless geological deposits (which were used for brickmaking), that were often found capping river terrace deposits. The term has been used widely but it is likely that not all 'brickearths' formed in the same way (e.g., not all may have a windblown content).*

[Curating the Palaeolithic: Glossary | Historic England](#)

Contexts 6 and 7 showed evidence of cryoturbation (fig 7).

7.1.3 Undated

The brickearth was cut by a number of features in the centre of the site. The first example encountered was allocated context 4, a 0.58m deep feature filled with 5, a

deposit of silty clay loam (fig 8). The fill was odiferous, which combined with its colour, greenish grey (Gley 6/10GY), suggest it formed in standing water. A number of similar features were found roughly in the centre of the site, some with very indistinct cuts (fig. 9). Where they were seen the sides of the trenches were cleaned to examine the fills. but no finds were present, so the features are interpreted as natural and are undated. Similar features were found on SOU 1771 to the southwest in 2017.

The 1876 OS map shows a line of trees in approximately this location (fig. 2), and it is probable that the features are a series of tree throws caused when large trees were uprooted in winter storms, the holes then filling with water and gradually silting up with the soil that was around the roots combined with the eroded sides of the holes.



Figure 8. Section in a foundation pad excavation on the centre east side of the site looking south showing brickearth 6 overlying River Terrace 4 gravel (context 3) and cut by feature 4.

Above the brickearth was topsoil context 1, a 30mm thick deposit of dark gray (10YR 4/1) silty clay loam (figs 8 & 9). It had probably built up slowly over millennia but must have been considerably enhanced when the site was used as a nursery in the late 19th and 20th centuries (fig. 3). The soil produced fragments of flowerpots, one fragment of clay tobacco pipe, sherds of Verwood, china, and post-medieval redware pottery, plus a few pieces of coal and cinders. The upper parts of the topsoil contained some fragments of modern material such as plastic, which was probably introduced when the netball court was constructed.



Figure 9. Section in a foundation pad on the east side of the site showing a tree-throw in section with an indistinct interface with brickearth/gravel below.

8. Conclusions

8.1 The natural was the Wittering Formation clay overlain by gravel of River Terrace 4 in the southwest of the site and River Terraces 6 to 7 in the northeast part. No evidence of hominid activity was seen in the gravel. The gravels were overlain by brickearth, which showed cryoturbation in places penetrating to the gravel beneath.

8.2 The brickearth was cut by several features. All appeared to be natural in origin and were interpreted as tree throws. Similar features were found at SOU 1771 to the southwest.

8.3 The site was used as a horticultural nursery in the 19th and 20th centuries, a few sherds of flowerpots, clay tobacco pipe and china probably were brought to the site during that phase of use.

8.4 Overall the site suggests this area of Southampton has not been utilised for settlement, but has been agricultural land for millennia.

8.5 The site did provide evidence that allows the boundaries of the Middle Late Palaeolithic gravels to be better defined, which will assist in better understanding where hominid activity may have taken place.

9. Bibliography

British Geological Survey <http://mapapps.bgs.ac.uk/geologyofbritain/home.html>

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Hatch, M, Davis R, Lewis S, Ashton N, Brian R, Lukas S. 2017. *The stratigraphy and chronology of the fluvial sediments at Warsash, UK: implications for the Palaeolithic archaeology of the River Test*. Proceedings of the Geologists Association 128 (2). Published by Elsevier

Munsell Color, 2000, *Munsell Soil Color Charts*, New Windsor.

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Appendix 1. Context list

T=Trench, C=Context, S/A= Stone Abundance, all measurements in millimetres

C	Category	Keyword	Length	Width	Depth	MUNSELL colour	Texture	S/A	Description	ABOVE	BELOW
1	LAYER	Topsoil			700	7.5YR 4/1	Silty clay loam	1	Modern topsoil over whole site. Sherds of Verwood and china	5,6	
2	LAYER	Natural			1000+	5YR6/8	Silty clay	0	Wittering clay beneath whole site		3
3	LAYER	Natural			550	7.5YR 5/8	Gravel	5	Ill-sorted River Terrace 6 to 7 gravel in NE of site	2	6
4	FEATURE	Tree throw	1700	1000	558			1	Gently sloping sides. Cuts 6		
5	Fill	Tree throw	1700	1000	558	Gley 1 6/10GY	Silty clay loam	0	No finds		
6	LAYER	Natural			260	10YR 6/4	Silty Clay		Brickearth, cryoturbated in south of site	3	1
7	LAYER	Natural			600+	7.5YR 4/1	Gravel	5	River Terrace 4 gravel in SW of site. Finer and better sorted than 3	2?	6